

Appl. No.: 10/667,282

Amdt. Dated: 13 August 2008

Reply to Office Action Mailed: 13 March 2008

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior listings, and versions, of claims in the application. Applicant reserves the right to pursue the subject matter of any canceled claims in a timely-filed continuation application.

What is claimed is:

1. (Currently Amended) A device ~~for monitoring the condition of a container, the device~~ comprising:

means for sensing at least one condition of ~~[[the]]~~ a container;

means for interpreting the at least one sensed condition to determine whether a security breach of the container has occurred;

means for transmitting information relative to ~~the at least one sensed condition~~ whether the security breach has occurred to a location outside the container; and

a support arm configured to position the interpreting means inside a C-channel of the container and to position the transmitting means on an exterior of the container when a door of the container is closed,

wherein the container is an intermodal freight container.

~~means for interpreting the at least one sensed condition; and~~

~~wherein the means for interpreting is adapted to be disposed inside the container.~~

2. (Currently Amended) The device as set forth in claim 1, ~~wherein the container includes at least one door and the device is adapted for mounting relative to the container between a region of the door and an adjacent region of the container.~~

3. (Currently Amended) The device as set forth in claim 2, wherein the adjacent region of the container comprises a vertical beam and adjacent the C-channel ~~and the location within the container for mounting at least a portion of the device comprises an area across the vertical beam and adjacent C-channel.~~

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4. (Currently Amended) The device as set forth in claim 3, wherein the at least one sensed condition comprises a sensed pressure of the door against the adjacent region of the container, and the means for sensing comprises at least one pressure sensor adapted to extend between the door and the adjacent region of the container.

5. (Currently Amended) The device as set forth in claim 4, wherein the ~~container~~-door further includes a gasket, and wherein the sensed pressure comprises the pressure of the door gasket against the pressure sensor.

6. (Currently Amended) The device as set forth in claim 1, wherein the at least one sensed condition comprises a sensed light, and wherein the means for sensing comprises a light sensor disposed inside the container.

7. (Original) The device as set forth in claim 1, wherein the at least one sensed condition comprises a sensed motion, and wherein the means for sensing comprises a motion sensor disposed inside the container.

8. (Original) The device as set forth in claim 1, wherein the at least one sensed condition comprises a sensed radioactivity, and wherein the means for sensing comprises a radioactivity sensor disposed inside the container.

9. (Canceled)

10. (Original) The device as set forth in claim 1, further including means for receiving information.

11. (Original) The device as set forth in claim 1, further comprising means for interfacing at least one peripheral sensor inside the container.

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12. (Original) The device as set forth in claim 11, wherein the at least one peripheral sensor comprises at least one of a pressure sensor, light sensor, radioactivity sensor, temperature sensor, motion sensor, combustible gas sensor, ammonia sensor, carbon dioxide sensor, fire sensor, smoke sensor, noise sensor, humidity sensor, and digital camera.

13. (Original) The device as set forth in claim 1, wherein the means for interpreting includes at least one power source for the device.

14. – 22. (Canceled)

23. (Currently Amended) A device for determining whether a security breach of a container has occurred, the device comprising:

means for detecting pressure exerted by a door of the container;

means for establishing a baseline pressure value, the baseline pressure value being related to a calculated mean value from at least two pressure detections;

means for defining a pressure threshold; and

means for determining from the pressure threshold and the detected pressure whether a security breach has occurred,

wherein the means for defining a pressure threshold calculates a window of acceptable pressure values, the window of acceptable pressure values defining a range of pressure values that are experienced during shipment of a container and that do not indicate a security breach.

24. (Original) The device as set forth in claim 23, wherein the means for defining a pressure threshold accumulates at least two sensed pressure values and calculates an average pressure value from the at least two sensed pressure values.

25. (Canceled)

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26. (Currently Amended) A method ~~[[of]]~~ for detecting a security breach ~~of a container~~, the method comprising the steps of:

~~placing a pressure sensor adjacent a structural member and a door of the container;~~
~~monitoring [[the]] a pressure sensor via a data unit processor located within [[the]] a~~
~~container; and~~

calculating by the processor a window of acceptable pressure values, the window of acceptable pressure values defining a range of pressure values that are experienced during shipment of the container and that do not indicate a security breach.

~~determining, by the data unit, whether a security breach of the door has occurred based on a change in pressure sensed by the pressure sensor;~~

~~communicating, by the data unit, of a result of the determining step to an antenna interoperably connected to the data unit and located adjacent to and outside of the container; and~~
~~transmitting, by the antenna, of information relative to the communicating step.~~

27. (Currently Amended) The method of claim 26, further comprising:

~~receiving, by a reader, of the information from the antenna; and forwarding, by the reader, of the information to the server~~

determining, by the processor, whether a security breach of the container has occurred based on a change in pressure sensed by the pressure sensor;

communicating, by the processor, of a result of the determining step to an antenna coupled with the processor via a support arm, and located adjacent to and outside of the container; and

transmitting, by the processor via the antenna, of information relative to whether the security breach has occurred.

28. – 46. (Cancelled)